

### REMARKS

This communication is responsive to the Final Office Action dated August 7, 2003. No amendments have been made at this time.

As a preliminary matter, Applicant would like to thank the Examiner for discussing the present Office Action on September 23 and September 24, 2003 with Mr. Sieffert, Applicant's representative. Mr. Sieffert and the Examiner Labaze discussed (i) the rejections of claims 1 and 9 under 35 U.S.C. 102(b) in view of US 5,621,571 to Bantli et al. ("Bantli '571"). In particular, Applicant described the general inapplicability of Bantli '571, as discussed in this response in detail below. During the interview, no amendments were proposed. This discussion constitutes Applicant's statement of the substance of the interviews of September 23 and September 24, 2003.

In addition, Applicant respectfully requests that the finality of the rejection be withdrawn. In the Office Action, the Examiner indicated that Applicant's submission of an informational disclosure statement on 9/9/2001 prompted the new ground(s) of rejection presented in the present Office Action, and that the present action was therefore made final. First, as the present application was not filed until 12/19/2001, Applicant is unclear to which IDS the Examiner is referring. It appears that the references forming the basis for the present rejection were actually cited by the Examiner in an Office Action dated 11/11/2002. Moreover, MPEP 609(B)(2)(i), cited by the Examiner, specifies only that the "next" office action could be made final in response to submission of art via the applicant after an action on the merits.

### Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1, 2, and 6-11 under 35 U.S.C. 102(b) as being anticipated by US 5,621,571 to Bantli et al. ("Bantli '571"). Applicant respectfully traverses the rejection. Bantli '571 fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. 102(b), and provides no teaching that would have suggested the desirability of modification to include such features.

For example, Bantli '571 fails to teach or suggest a combination tag comprising a retroreflective article having an optical article and a reflective layer, wherein the reflective layer comprises a metallized ink deposited on at least a portion of a structured surface of the optical article, as recited by Applicant's independent claim 1.

As another example, Bantli '571 fails to teach or suggest a combination tag, comprising a retroreflective article having an optical article and a reflective layer, the optical article having an optical surface and an opposite structured rear surface formed from the spacing resin, wherein the reflective layer is a non-contiguous metallized layer deposited on at least a portion of the structured rear surface of the optical article, as recited by Applicant's independent claim 9. Moreover, Bantli '571 fails to teach a radio frequency-responsive element coupled to the rear surface of the article, as further recited by Applicant's independent claim 9.

In the Office Action, the Examiner referred to column 5, lines 40+ of Bantli '571, and asserted that the reference anticipates Applicant's claimed elements by disclosing a metallized ink/coating. This assertion, however, is flawed for at least two reasons.

First, this passage of Bantli et al. (US 5,621,571) describes a conventional "retroreflective sheeting" in which a "continuous reflective coating" is "vapor deposited aluminum." Contrary to the Examiner's assertion, Bantli et al. '571 makes no mention of the use of metallized ink as a reflective layer, as recited in Applicant's claim 1, and refers instead to a layer of vapor-deposited metal. As described with the present application, a metallized ink includes non-contiguous metal particles. This is fundamentally different from a vapor deposited metal layer. The passage cited by the Examiner specifically states that the vapor deposited reflective coating is "continuous," in direct contrast to the "non-contiguous metallized layer" recited in Applicant's claim 9.

Second, the cited passage of Bantli '571 specifically states that the described conventional reflective sheeting 6 having vapor deposited aluminum is inoperative and cannot be used in an electronic license plate. Specifically, in the passage cited by the Examiner, Bantli '571 states:

*FIG. 1a is a side cross-sectional view and FIG. 1b is an exploded view of the integrated retroreflective electronic license plate of FIG. 1. Printed information 4 is placed on the front side of retroreflective sheeting 6. Retroreflective sheeting 6 cannot be the type of retroreflective sheeting typically used with traditional license plates. A cross-sectional view of the type of retroreflective sheeting typically used is shown in FIG. 2. Enclosed lens retroreflective sheeting 30 employs a monolayer of microspheres 32, typically glass beads, embedded in binder layer 34 with transparent cover film 31. Underlying and spaced from binder layer 34 is substantially continuous reflective coating 36. A polymeric spacing layer may be provided between binder layer 34 and reflective coating 36 to provide a uniform layer of spacing, the space coat having an array of connected hemispheres. Continuous reflective coating 36 is preferably vapor deposited aluminum. Substantially continuous reflective metal coating 36 acts as a conductive plane. Reflective coating 36 would render any antenna network placed*

*behind it ineffective for communication if used in an electronic license plate. Adhesive layer 37 may be included with removable paper liner 38 for bonding retroreflective sheeting 30 to any surface, although usually a metal substrate.* (emphasis added)<sup>1</sup>

In contrast, Applicant's application describes how a metallized ink may be used to produce a retroreflective value that visually approximates a vapor coated retroreflective sheeting, yet provides radio frequency-responsiveness.<sup>2</sup> Applicant respectfully submits that the Examiner's assertion that the Bantli et al. '571 reference anticipates the use of a metallized ink is clearly erroneous.

Bantli '571 fails to disclose each and every limitation set forth in claims 1, 2, and 6-11. For at least these reasons, the Examiner has failed to establish a prima facie case for anticipation of Applicant's claims 1, 2, and 6-11 under 35 U.S.C. 102(b). This rejection must be withdrawn.

#### **Claim Rejection Under 35 U.S.C. § 103**

In the Office Action, the Examiner rejected claims 4-5 and 12 under 35 U.S.C. 103(a) as being unpatentable over Bantli '571 in view of Brennan et al. (US 5,844,523). Applicant respectfully traverses the rejection. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

As described in Applicant's last response, neither Bantli et al. '571 nor Brennan makes any mention of a reflective layer comprising a metallized ink, let alone the use of an ink having a metal content of about 10% to 14% by volume, as recited by claim 4. Thus, even if the modification proposed by the Examiner could be achieved in Bantli et al. '571, Applicant's claimed invention would not be realized.

It appears that the Examiner is still confused with respect to Brennan et al. Column 10, line 16, and column 17, line 20, of Brennan et al., cited by the Examiner, refer to insulative "filler" that is added to a thermoplastic elastomer at about 5% to 60% by volume. In other words, these concentrations refer to insulative filler not conductive metal particles. Column 11, lines 19-27 of Brennan refer to a metallized layer for a tunable dielectric substrate for use in a

<sup>1</sup> Bantli '571, column 5, lines 25-40.

<sup>2</sup> Page 9, lines 5-12, 23-25.

printed circuit board, which has no relevance to a retroreflective sheeting. Consequently, Brennan et al. does not teach or suggest a reflective layer comprising a metallized ink.

The Examiner asserts that it would have been obvious to one of ordinary skill in the art in view of Brennan et al. to modify Bantli '571 to use metal ink. The Court of Appeals for the Federal Circuit has made clear that motivation to combine references must be found in the prior art, and that it is impermissible hindsight for the Examiner to use the motivation stated in Applicant's own disclosure as a blueprint to reconstruct the claimed invention from the prior art.<sup>3</sup> Moreover, it is insufficient to merely pull such motivation out of thin air. Rather, the Examiner's rejection must be based on substantial evidence in the record to demonstrate that the motivation for making the claimed invention resides in the prior art.<sup>4</sup>

As the passing reference to a "conductive ink" in Brennan is directed to use in a printed circuit board, there is no teaching or suggestion of a combination tag having a frequency-responsive element and a retroreflective article having a reflective layer comprising a metallized ink, as recited by Applicant's claim 1. The Examiner surmises that it would have been obvious to one of ordinary skill in the art to use a metal ink to "achieve better and brighter reflections and color diffusions" and that a metal content of 10% to 14% would "reduce cost, control how incident light is directed toward the light source, and increase the reflectivity of the article."

It is clear that the Examiner improperly plucked these motivations out of thin air as none of this is found in Brennan or is even relevant to the metal layer described in Brennan. Moreover, this conjecture by the Examiner is plainly incorrect. Bantli '571 describes that the conductive sheeting renders any antenna network ineffective. Accordingly, one of ordinary skill in the art would have avoided the modification proposed by the Examiner. The Examiner's conjecture regarding better and brighter reflectivity is immaterial with respect to the problems stated by Bantli '571. The cited references offer no teaching or suggestion that the deficiencies of Bantli '571 can be addressed by Brennan to achieve the Applicant's invention. In summary, the Examiner's conclusion of obviousness is unsupported by any substantial evidence in the record.

<sup>3</sup> See *Interconnect Planning Corp. v. Feil*, 227 USPQ 543 (CAFC 1985); see also *In re Fine*, 5 USPQ2d 1596, 1598 (CAFC 1988); see also *In re Gorman*, 18 USPQ 2d 1885, 1888 (CAFC 1991); see also *Al-Site Corp. v. VSI International, Inc.*, 50 USPQ2d 1161, 1171 (CAFC 1999).

<sup>4</sup> *In re Lee*, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002); *In re Chu*, 36 USPQ2d at 1094.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 4-5 and 12 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

### CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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By:

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